

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior claims in this application:

1-21 (Canceled)

22. (Currently amended) A method of treating, managing or preventing obstructive lung disease comprising administering to a patient a pharmaceutical composition comprising an effective amount of:

- (a) heat killed whole cell *Mycobacterium w* ~~Mycobacterium w~~, or
- (b) [[a]] ~~sonicated constituent of *Mycobacterium w* ~~Mycobacterium w~~~~
- (c) a solvent extract of *Mycobacterium w*, wherein the solvent is selected from chloroform, ethanol, methanol, acetone, phenol, isopropyl alcohol, acetic acid, urea, and hexane, or
- (d) an enzymatic extraction of *Mycobacterium w*, wherein the enzyme is selected from liticase and pronase.

23. (Currently amended) A method of treating, managing or preventing obstructive lung disease comprising administering to a patient a pharmaceutical composition comprising an effective amount of:

- (a) heat killed whole cell *Mycobacterium w* ~~Mycobacterium w~~ or,
- (b) [[a]] ~~constituent of *Mycobacterium w* ~~Mycobacterium w~~~~ sonicated *Mycobacterium w*,
- (c) a solvent extract of *Mycobacterium w*, wherein the solvent is selected from chloroform, ethanol, methanol, acetone, phenol, isopropyl alcohol, acetic acid, urea, and hexane, or
- (d) an enzymatic extraction of *Mycobacterium w*, wherein the enzyme is selected from liticase and pronase, wherein the method is for treating, managing or preventing asthma.

24. (Currently Amended) The method of claim 23, wherein the method is for delaying attacks of asthma.

25. (Currently Amended) The method of claim 23, wherein the method is for reducing the requirement of drugs used to improve lung function during the management of asthma.

26. (Previously Presented) The method of claim 23, wherein the method is for improving lung function in the presence or absence of other drugs.

27. (Previously Presented) The method of claim 23, wherein the asthma is bronchial asthma.

28. (Currently amended) The method of claim 22, wherein the pharmaceutical composition comprises an admixture of ~~Mycobacterium w~~ heat killed whole cell *Mycobacterium w* and constituents of mycobacterium w prepared by cell disruption sonicated *Mycobacterium w*.

29. (Currently amended) The method of claim 22, wherein the pharmaceutical composition comprises sonicated *Mycobacterium w* constituents of *Mycobacterium w* prepared by cell disruption.

30. (Canceled)

31. (Canceled)

32. (Currently amended) The method of claim 22, wherein the pharmaceutical composition comprises a solvent extract of *Mycobacterium w*.

wherein the solvent is selected from chloroform, ethanol, methanol, acetone, phenol, isopropyl alcohol, acetic acid, urea, and hexane constituents of Mycobacterium w
prepared by solvent extraction.

33. (Canceled)

34. (Currently amended) The method of claim 22, wherein the pharmaceutical composition comprises an enzymatic extraction of Mycobacterium w,
wherein the enzyme is selected from liticase and pronase constituents of
Mycobacterium w prepared by enzymatic extraction.

35. (Canceled)

36. (Previously Presented) The method of claim 22, wherein the pharmaceutical composition further comprises an adjuvant.

37. (Previously Presented) The method of claim 36, wherein the adjuvant is selected from mineral oil, mineral oil and surfactant, Ribi adjuvant, Titer-max, syntax adjuvant formulation, aluminum salt adjuvant, nitrocellulose adsorbed antigen, immune stimulating complexes, Gebru adjuvant, super carrier, elvax 40w, L-tyrosine, monatanide (manide – oleate compound), Adju prime, Squalene, Sodium phthalyl lipopoly saccharide, calcium phosphate, saponin, melanoma antigen and muramyl dipeptide (MDP).

38. (Previously Presented) The method of claim 22, wherein the pharmaceutical composition further comprises a surfactant.

39. (Previously Presented) The method of claim 38, wherein the surfactant is polyoxyethylene sorbitan monooleate (Tween 80) or Triton X100.

40. (Previously Presented) The method of claim 38, wherein the surfactant is present in the pharmaceutical composition in a concentration of up to 0.4%.

41. (Previously Presented) The method of claim 38, wherein the surfactant is present in the pharmaceutical composition in a concentration of up to 0.1%.

42. (Previously Presented) The method of claim 22, wherein the pharmaceutical composition further comprises a preservative.

43. (Previously Presented) The method of claim 42, wherein the preservative is Thiomerosal and is present in a concentration of 0.01% w/v.

44. (Canceled)

45. (Currently amended) The method of claim 22, wherein the pharmaceutical composition is in a unit dosage form comprising at least 10⁵ Mycobacterium w ~~Mycoobacterium w~~.

46. (Currently amended) The method of claim 22, wherein the pharmaceutical composition is in a unit dosage form comprising at least 10⁷ Mycobacterium w ~~Mycoobacterium w~~.

47. (Currently amended) The method of claim 22, wherein the pharmaceutical composition is in a unit dosage form comprising between 10^8 and 10^9 Mycobacterium w ~~Mycobacterium w~~.

48. (Currently amended) A method of treating, managing or preventing obstructive lung disease comprising administering to a patient a pharmaceutical composition comprising an effective amount of heat killed whole cell Mycobacterium w (a) ~~Mycobacterium w~~ or (b) ~~a constituent of Mycobacterium~~, wherein the constituent of ~~Mycobacterium w~~ is prepared by cell disruption, solvent extraction, or enzymatic extraction.